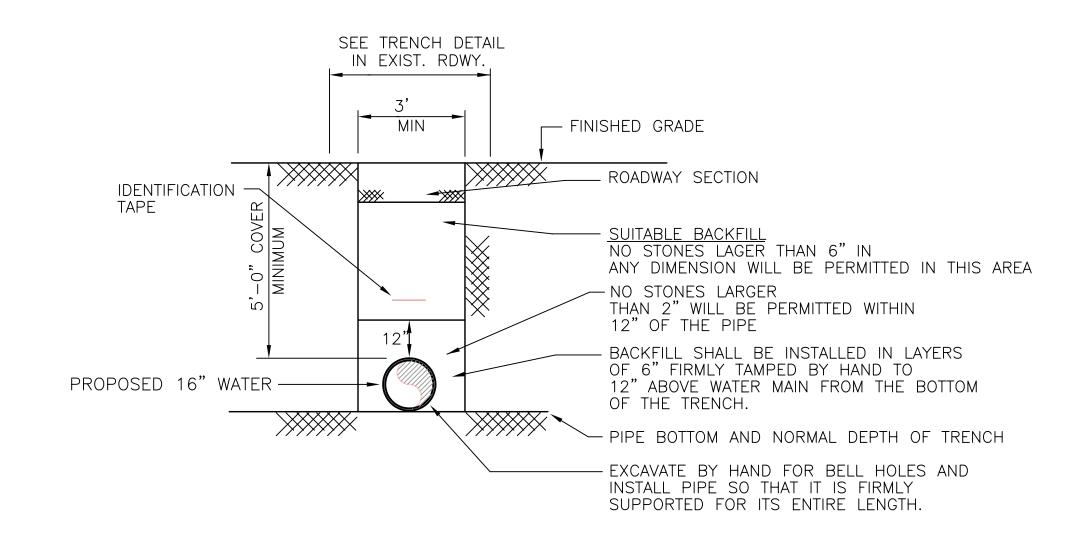
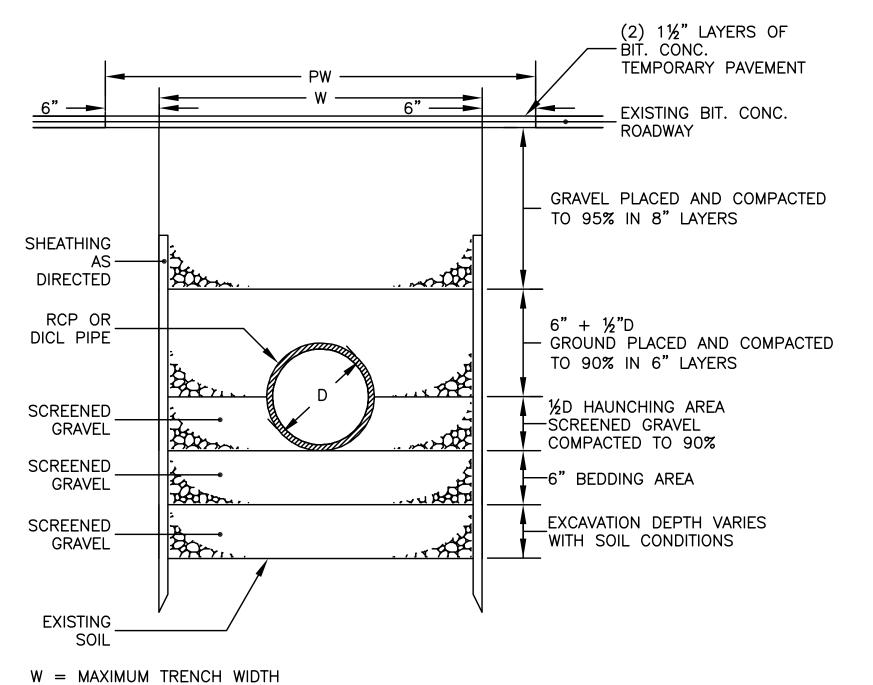


TRENCH DETAIL IN EXISTING ROADWAY



TYPICAL TRENCH DETAIL OF WATER MAIN IN FIRM GROUND



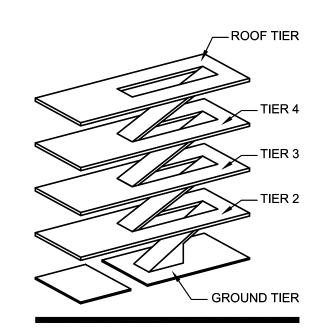
PW = MAXIMUM PAVING WIDTH = W+1'-0"D = OUTSIDE DIAMETERUNSHEATHED TRENCH: W = D+2'(3'-0" MIN.)SHEATHED TRENCH: W = D+2'+SHEATHING WIDTH: 4'-2"MIN. W/O WALERS 5'-0" MIN. W/WALERS TRENCH BOX OR HYDRAULIC SHORING: $W = D+2' + [WALL SHIELD WIDTH \le 8'] + 1' FOR TRENCH BOX$

> TYPICAL TRENCH DETAIL FOR RCP OR DICL PIPE

> > **60% SUBMITTAL** May 2, 2005

JAM Parking Structure 101-115 Middlesex St.

City of Lowell, MA



Civil/Structural:

Parsons Brinckerhoff
Quade & Douglas, Inc. 75 Arlington Street Boston, MA 02116 Tel: 617-426-7330 Fax: 617-482-0642

Architecture: Fennick McCredie Architecture, Ltd.

Judith Nitsch Engineering

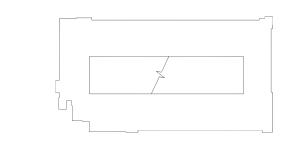
Cost Estimating: Hanscomb, Faithful & Gould

Code Compliance: Robert W. Sullivan, Inc.

Landscape Architecture: Pressley Associates, Inc.

No. Date Revision

Job No.:	18913A
Drawn By:	NA
Checked By:	RKO
Date:	5/2/05
Scale:	





KEY PLAN CIVIL STANDARD DETAILS 2

C-5